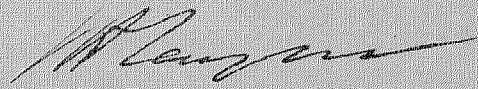


27. 12. 1881

24. This will be met from the Portage after paying the Contractor.
25. Mr. Thorowgood's estimate for Harbour I enclose, but that may stand over for the present.

I have the honor to be,
Sir,
Your most obedient servant.



Master Attendant,
Administrative Department.

Report of Trades' Association through the Chairman.

1. I see no good grounds for delaying the consideration of Captain Taylor's proposals. In G. O. 2512, of 14th October, the Government stated that in appointing the Committee "the object of the Government was to obtain their advice "as to the best arrangements for managing the Harbour and levying dues for its "use," because "it is essential that a reasonable revenue should be raised."
2. The Government are fully entitled to some return for the monies already expended, and as Captain Taylor proposes a plain and practical scheme, and shows how funds can be obtained without, perhaps, any increase upon present rates, I consider that it should at once be discussed, if the Committee have any desire to assist Government with practical advice.
3. I do not see that Mr. Parkes' views at all affect the consideration of the real question before the Committee. Those views can have reference only to the construction and maintenance of the Harbour Works, and can scarcely relate to the question as to the dues that may be fairly levied upon goods shipped and imported.
4. As a whole, I entirely approve of Captain Taylor's proposed scheme, and hope that, before long, it, or something similar, may be adopted.

ROBERT G. ORR.

21st December 1881.

L.C. 2011/16-8-81.
B. 23938-28-9-81.
L.C. 25128-14-10- "
" 25968-25-11- "
" 13828-5-6- "

No. 1578 wdy 21st June 1882
B
Recorded with
reference to G.O. No
1382 wdy 5th June 1882

M.H. 143/6-
not 16/11. Rec 21/11
14/10/6

Cy
Entd in R. Register
14/10/6

B.L. 10730 Jr. 20-3-82.

Mr. P. 39/14

GOVERNMENT OF MADRAS.
PUBLIC WORKS DEPARTMENT.

16th August 1881, No. 2,011 W.

Buildings and Roads.
Civil Works.

Read the following paper:—

No. 62. Despatch from the Most Honorable the Secretary of State for India.
Public Works. INDIA OFFICE, LONDON,
No. 17. 23rd June 1881.

Herewith is forwarded, for the information of Your Excellency's Government,
* Dated 12th May 1881. copy of a report* by Mr. Parkes on the
progress made on the Madras Harbour
Works for the quarter ending 31st March last.

2. Mr. Parkes has further supplied this office with copies of three reports, which he submitted to your Government during his recent visit to Madras. These reports relate to a revised and slightly higher estimate of the cost of the works, changes of the coast line north of the harbour, and reclamation of the beach, and erection of boat jetties within harbour limits.

3. As the works connected with the Madras Harbour are now approaching their completion, I shall be glad to be furnished with an expression of the opinion of your Government on the several points raised by Mr. Parkes in his reports, and also to be made acquainted with any action which it appears probable to Your Excellency will be needed soon in respect to the administration, maintenance, and financial management of the harbour in the future.

4. With reference to these points, I observe, from the Proceedings of the Government of India, in their Department of Revenue, Agriculture, and Commerce, for April 1879, that communications were addressed to your Government by the Government of India, dated the 19th April 1879, requesting that the necessary steps might be taken for the constitution of a Port Trust for the management of the Madras Harbour, forwarding, at the same time, for the opinion of your Government, the draft of a bill by which it was proposed by the Government of India to make some necessary amendments in the Indian Ports Act of 1875, in order to meet the local and financial requirements of the harbour at Madras.

5. I request to be informed what steps have been taken by your Government to give practical effect to the suggestions of the Government of India in respect to the formation of a Port Trust. These suggestions were made more than two years ago, and, considering the approaching completion of the harbour, no delay should occur in creating the necessary machinery for its management.

I have, &c.,
(Signed) HARTINGTON.

His Excellency the Honorable
The Governor in Council, Fort St. George.

MADRAS HARBOUR.

REPORT of Progress for the Quarter ending 31st March 1881.

23, ARBINGDON STREET,
12th May 1881.

I HAVE the honor to enclose herewith a plan, showing the state of the works on the 31st March, and a photograph taken 5th April. I also enclose copies of three reports made to the Government while I was at Madras. The first, dated 25th January, on the changes of the coast line north of the harbour, with two tracings attached. The second (printed with General Order, No. 712 W.,) dated 1st March, on the estimate and statements of expenditure. The third, dated 14th March, on the reclamation of the beach and the boat jetties proposed to be erected within the harbour, with a plan attached.

2. I was myself at Madras from the 6th January till the 5th March, and again for a day on the 14th, so that the greater portion of the work executed within the quarter was done under my own inspection.

3. The progress made was good, the north pier having advanced in the quarter 239 feet, and the south pier 496 feet, notwithstanding the work was much impeded in the month of January by frequent rough seas.

4. The shorter length of the north pier is due to its having been widened out to form the head. The actual amount of work done was equivalent to a length of nearly 400 feet of the normal section.

5. Its present termination is within a few feet of its extreme end, and some of the end blocks were actually set during the first four days of April, but, for the first time in the course of this work, a partial failure occurred. The tier of blocks which is to form the south-east corner of the pier head, being set upon the unconsolidated rubble foundation, proved unable to withstand the lateral pressure of the adjacent blocks which lean against it, and it was forced so much out the vertical in both directions that it was necessary to take it up. A different arrangement of the blocks will have to be made to prevent a repetition of this. This will be prepared for during the necessary suspension of the work for the anticipated rough weather of May, and I see no reason to doubt that the next attempt will be quite successful. If so, the remainder of the pier head will be easily finished in the following fine season.

6. The rubble base for the north pier is completed, with the exception of such small quantity as may be required for levelling the foundations for the blocks not yet in place.

7. The forms of the pier heads have been finally determined on in consultation with the Master Attendant. The north pier will require 5,813 cubic yards, and the south pier 4,581 cubic yards of concrete blocks additional to the quantity originally estimated for, involving a total extra cost of Rs. 1,12,255, but of this Rs. 40,000 is met by the reduction which the alteration renders possible in the estimate for the lighthouses, and the remainder is well within the amount already saved on the total original estimate for the piers.

8. The south pier was, on the 31st March, 320 feet from the extreme end, and some further progress will have been made before the ensuing rough season. What remains will, I hope, be finally completed before next north-east monsoon in November. The advance had been somewhat delayed by the difficulty of getting labour for the quarries, so that the rubble base did not advance so fast as the superstructure, and the latter had to be retarded, but the quantity of stone now remaining to be deposited (about 34,000 tons) is less than half that (71,396 tons) deposited in the last quarter, so there is little fear of any ultimate delay from this cause.

9. Unless, therefore, anything very unforeseen should occur, it may be expected that the two piers will be completed, and the establishment much reduced, if not entirely broken up, before November.

10. For several months past the harbour has been used by the great majority of the steamers frequenting the port, notwithstanding the incomplete state of the piers, and the want of fixed moorings. Native sailing craft also anchor in considerable numbers under shelter of the piers, both inside and outside the harbour. The larger class of sailing ships have not yet come inside; the only exception being that of the "Czarewitch," the Indian Government troopship which has twice sailed in and out. It is considered, however, that there should be a steam tug provided for use when necessary before ordinary merchant sailing ships of large size can prudently use the harbour.

11. The advantage to the operation of landing and shipping cargo is found to be so great that the legal rate of boat hire has been reduced from 2½ to 1½ rupees per trip. This is equivalent to half a rupee per ton. Another half rupee might certainly be saved by the use of larger boats and more convenient jetties.

12. Up to the date of my leaving Madras, however, no arrangements had been made by which this saving was credited to the harbour revenue.

13. It may be anticipated that the addition which has been made to the south pier in the last quarter will have the effect of increasing the effective shelter of the harbour more than the same length of pier in any part previously built. Some disappointment appears to have been felt at the imperfect shelter afforded in the last south-west monsoon, and still more during the heavy seas from the east and south-east which prevailed in the middle of November, but at that time the length of the south pier was not sufficient to embay any considerable area of the harbour, and the north pier was rather injurious than otherwise, by reflecting the waves from its south face into the middle of the harbour. Every addition made since then, however, has covered a proportionate area in the width of the harbour, and I think in the ensuing south-west monsoon a great improvement will be perceptible. This will be further increased by the addition of 300 feet, as yet incomplete.

14. A reference to the plan will show that the annual addition to the shore south of the harbour continues as anticipated. The last year's addition looks rather large, but not to an extent beyond the range of variation from year to year that may be expected. The former vague fears of the local public as to the evil effects of this accumulation appear to have vanished, and to be replaced by a general desire, both in public and private interests, to occupy the ground gained from the sea for useful purposes.

15. The attention of the Government of Madras has been called to the question whether the annual value of this land be not a legitimate source of revenue to the harbour. The buildings shown in red upon the plan have recently been erected by the Commissariat Department as stables for horses and mules landed from ships.

16. With regard to the shore line within the harbour, I would remind you that, in my report on the quarter ending September 1880, (paragraphs 8—11), I pointed out the change that had taken place in the previous south-west monsoon was the opposite of that which had occurred in former monsoons. The north half was cut away and the south half advanced. The recent north-east monsoon has restored the line to nearly what it was in March 1880, but there is an advance of about 100 feet at the northern end. This is due to a deepening at a little distance from shore, which I mentioned in the same report. The additional width of beach is rather an advantage, especially as it is accompanied by a slightly increased depth of water abreast of it. Now that the beach is brought under more complete shelter of the piers, it is probable that there will be little more change.

17. The changes of the coast line north of the harbour form the subject of the appended report to the Government of Madras, dated 25th January, but I may here summarize my general conclusions.

18. A length of 1,100 yards of coast measured from the line of the north pier is now completely protected, the northern half of that length being faced with a rubble stone revetment, and on this there is nothing to remark at the present time. Northward of this, however, for a length of 2,000 yards, which is shown on tracing No. 1 accompanying that report, the coast was cut away between 1876 and 1878 for a width of 150 feet near the southern end, gradually diminishing to nothing at the northern end.

19. From 1878 to 1880 there was found, on comparing the lines of beach at corresponding seasons of the several years, to have been no further loss on the whole. There were gains of land during the north-east and losses during the south-west monsoons, which nearly balance one another each year. Moreover, the northernmost 600 yards of the length of land lost in 1877 and 1878 was regained in 1880, leaving the line of shore in that year very nearly what it was in 1876.

20. There were, however, in the early part of November 1880, some heavy seas from the north-east, which made rather serious inroads, but these were subsequently made up by the more moderate seas which followed from the same quarter, showing that heavy and moderate seas from the same quarter have opposite effects.

21. Some claims for compensation have been made by the owners of land abutting on the coast, and the claimants have submitted in support of their claims plans which show that changes larger in amount than those which are attributed to the action of the harbour works had taken place at former times. This is very clearly seen in the case of the shaded area marked on the tracing No. 1, as now offered for sale.

22. The above facts seem to point to the following conclusions:—

1st That the erosive action due to the harbour works has, for the present at least, ceased.
2nd That causes of erosion other than the harbour works have been in former times, and still are, in existence, and the adjoining land has always been held subject to the risk of the changes due to these causes.

3rd That a recuperative action is also going on.

23. In view of these conclusions, I advised that the Government should abstain from taking action which would involve an admission of liability for damage due to other causes than the harbour works, and that, in accordance with this principle, any further costly protective works were for the present inadvisable. It might be desirable, with the view of simplifying the

question where claims for compensation were made, however, to purchase such land abutting on the shore as could be obtained at a reasonable rate.

24. I would beg to call attention to the plan appended to my report of 14th March, showing the intended improvements of the beach between the piers. The works for these are now in hand, the cost being temporarily met from a balance of Rs. 1,38,000 standing to the credit of Port Funds, independent of the harbour works grant. I think there is no doubt that the interest upon this will be more than covered by the revenue that may be derived from letting the land for trade purposes, but no permanent financial arrangements have, I believe, been as yet determined on. As soon as the new jetties are completed, the existing screw pile pier will be for a time disused, but it will form the foundation of the next extension of accommodation that may be required. The piles are very strong, and suitable for carrying a new superstructure more adapted to the new system of landing and shipping. The present superstructure is not only inconvenient, but in a bad state of repair.

25. I have not yet received the statement of expenditure up to 31st March. When it comes to hand I will at once submit to you an abstract of it, compared with the estimate, as usual.

I have, &c.,
(Signed) W. PARKES.

The Secretary of State for India.

No. 63. ORDER THEREON, 16th August 1881, No. 2,011 W.

ORDERED that the Secretary of State be addressed.

2. Meanwhile the Honorable the Governor in Council considers it desirable, in view of the incomplete condition of the Harbour, that the question as to its immediate management pending the constitution of a Harbour Trust and as to the dues which may be fairly levied in present circumstances in the interests of all concerned should be considered by a carefully selected Committee.

3. The following gentlemen will therefore be requested to form themselves into a Committee for consideration and report on these points:—

The Honorable P. Macfadyen.
" " J. G. Coleman.
" Collector of Sea Customs.
" Master Attendant.
" Secretary of the Trades Association.
Major J. Pennycuik, R.E.
Mr. R. C. Walker.
Mr. Thorowgood.
The Government Solicitor.

(True Extract.)

(Signed) R. H. SANKEY, Colonel, R.E.,
Secretary to Govt., P.W.D.

To the Marine Department.

Exd. S. T. Austin.
Spare Copies



BUILDINGS AND ROADS
CIVIL WORKS.

Govt. of Madras.
PUBLIC WORKS.

THE MARINE DEPARTMENT.

AUGUST.

No. 62-63.

Madras Harbour.—A Committee appointed to consider and report on certain points relating to the immediate management of the — pending the constitution of a Harbour Trust and as to the dues which may be fairly levied.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

14th October 1881, No. 2512 W.

Buildings and Roads.
Civil Works.

Read the following paper:—

No. 46. Report of the Harbour Committee, to the Secretary to Government, Public Works Department, dated Madras, 28th September 1881.

WE have the honor to inform you that, acting on the instructions contained in G.O., No. 2011 W., of the 16th August 1881, we have considered the questions therein referred to us in connection with the harbour.

2. The only dues at present levied are such as can be collected from sailing vessels and steamers, and we have arrived at the unanimous conclusion that the harbour ought to look for the greater part of its income rather to charges on goods than to dues on vessels coming to the port. Before elaborating any scheme for raising a revenue from goods we thought it desirable to obtain advice as to whether, without fresh legislation, Government could give effect to any recommendations we might make. We accordingly consulted the Government Solicitor, and we annex a copy of the opinion received from him. It will be seen that he is quite clear that before goods can be touched for the purpose of harbour revenues, legislation will require to be resorted to. Under these circumstances we have deemed it our duty to consider the direction that we would recommend this legislation should take. Government may introduce an Act empowering themselves to levy dues on goods, or they may proceed with the Port Trust Bill, which we understand has already been before the Legislative Council. By a majority of seven to two, we have decided respectfully to ask Government to expedite as much as possible the passing of the Port Trust Bill, as we believe that measure will best meet the requirements, both immediate and future, of the Harbour administration. We have given every weight to the various arguments that have been adduced in favor of a purely Government administration, but, in the opinion of the majority of the Committee, the interests of Government as well as of the trade of the port will be best guarded by a body like the Trustees to be created under the Port Trust Bill. This being the result of our deliberations, and having in view the fact that one of the most important functions of the Harbour Trustees will be to frame a scale of charges for both goods and vessels, we have not thought it desirable or necessary to go into the question of the dues that ought to be levied. As no effect could be given to our recommendations it seems best not to anticipate the course that a legally created body of Trustees may take.

The immediate management of the harbour will require to remain as it is, pending such legislative action as Government may see fit to take.

(Signed)	P. MACFADYEN.
(")	C. A. GALTON.
(")	J. H. TAYLOR, with dissent.
(")	ROBERT G. ORR.
(")	F. N. THOROWGOOD.
(")	EARNEST BARCLAY.
(")	J. G. COLEMAN.
(")	R. C. WALKER.
(")	J. PENNYCUICK.



respectfully submit that a standing Harbour Committee can afford all the assistance and advice of which the Government may stand in need.

MADRAS,
23rd August 1881.

(Signed) ROBERT G. ORR,
Chairman, Madras Trade Association.

No. 47. ORDER THEREON, 14th October 1881, No. 2512 W.

THE papers above recorded contain the Report of the Committee assembled under G.O., No. 2011 W., dated 16th August 1881.

2. While thanking the Committee for their Report, the Honorable the Governor in Council observes that it is apparent that they have misapprehended the object for which they were requested to assemble and the scope of the Proceedings of Government indicating the points on which an expression of their opinion was desired.

3. The object of the Government was to obtain their advice as to the best arrangements for managing the harbour and levying dues for its use, and for landing and shipping goods under the improved facilities afforded, pending the transfer of the harbour to a Trust Board, the formation of which at present the Government consider would be premature. Meanwhile, however, it is essential that a reasonable revenue should be raised from the use of the harbour, to cover current expenses and interest on capital expenditure. Legislation may be necessary, but there need be no difficulty on that account.

4. The Honorable the Governor in Council would be glad if the Committee would reassemble and afford the Government such advice as they may wish to offer in the direction indicated.

(True Extract.)

(Signed) R. H. SANKEY, Colonel, R.E.,
Secretary to Govt., P.W.D.

To the Marine Department.
„ Honorable P. Macfadyen.
„ „ J. G. Coleman.
„ Collector of Sea Customs.
„ Secretary of the Trades Association.
To Major J. Pennycuik, R.E.
„ R. C. Walker, Esq.
„ F. N. Thorowgood, Esq.
To the Government Solicitor.

„ *Attest*

Exd. S. T. Austin.
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BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of (1881) Madras.
PUBLIC WORKS.

THE MARINE DEPARTMENT

to, to, to

Dated October, 14th.

Issued

Recd.

Encl.

G. O., 14th October 1881, No. 2512 W.

OCTOBER.

Nos. 46-47.

Madras Harbour—The Committee appointed for reporting on certain points connected with the immediate management of the — requested to reassemble for further reporting on the best arrangements for managing the — and levying dues for its use, and for landing and shipping goods.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

25th November 1881, No. 2956 W.

Buildings and Roads.
Civil Works.

Read the following paper :—

No. 121. Despatch from the Most Honorable the Secretary of State for India.

Public Works,
No. 35.

INDIA OFFICE, LONDON,
27th October 1881.

SIR,—Upon receipt of your Excellency's Public Works letter, No. 51, dated 17th August last, your suggestion that Mr. Parkes should be deputed to Madras to watch the effects of the next two cyclone seasons upon the Harbour Works was communicated to that gentleman.

2. In reply, I have received a letter from Mr. Parkes, in which, while stating his willingness to go out whenever his services could be usefully employed, he expresses an opinion that no good would result from his deputation at the present time. A copy of Mr. Parkes' letter is enclosed. Its

Dated 28th September 1881.

I do not feel that I have before me any sufficient reason for calling upon him to proceed to India at this time.

3. As regards the comparisons that have been drawn between the sections of the Madras and the Colombo breakwaters to the disadvantage of the former, I will content myself with referring you to Mr. Parkes' letter of 4th August last, which was transmitted to you with my despatch, No. 26, of the 24th idem, and particularly to what is said by Mr. Parkes in paragraphs 12 and 13 of that letter.

4. Mr. Parkes has also addressed a letter to me, dated 28th September, in reference to the orders, which were issued by your Government (20th August 1881, No. 2077 W.) directing Mr. Thorowgood to suspend action on instructions which he had received by telegraph from Mr. Parkes on a detail of construction. It appears that Mr. Parkes' instruction had been carried out before your orders were received, but Mr. Parkes thinks that these orders were an interference with his proper responsibility, and I am disposed to agree with him.

5. I must further remark that the reasons which have induced you to defer the institution of a Port Trust or Local Board of some kind for the administration of the harbour, do not appear conclusive.

6. Although it be possible, or even probable, that additions will be required to the engineering work, the harbour is already used, and affords shelter. No dues can be levied except under the authority of some law, and the application of the law to the complicated and often conflicting interests of those by whom the charges will be borne should in my opinion be entrusted at the earliest possible time to a regularly constituted and thoroughly responsible Board of Management.

I have, &c.,

(Signed) HARTINGTON.

His Excellency the Honorable the Governor
in Council, Fort St. George.

From W. PARKES, Esq., M. INST. C. E., Engineer-in-Chief, Madras Harbour Works, to the Under Secretary of State for India, dated 23, Abingdon Street, 28th September 1881.

Madras Harbour.

I HAVE the honor to return, herewith, the papers forwarded to me, with your letter of 23rd instant, and I also beg to enclose for perusal, as having an important bearing on the same question, copies of a letter from myself to Captain Taylor, dated 10th June, and of a printed paper containing one from Captain Taylor to the Madras Government, a memorandum by Colonel Sankey, R.E., and the order thereon, dated 1st August.

2. The Government of Madras are of opinion that my presence in Madras is highly desirable from "probably the 15th October next till at least the end of the spring cyclone season, say, 15th May 1882."

3. The grounds for this opinion appear to be that questions have arisen, or may arise based on the following facts:

1. That the Madras breakwaters are 10 feet narrower than that in course of construction at Colombo.
2. That the rubble base at Madras had been on one occasion acted on by the sea.
3. That some settlement had taken place near the end of one of the breakwaters.
4. That some further erosion had been observed in the shore beyond the completed portion of the revetment north of the harbour.
5. That some disappointment appears to have been felt as to the imperfect shelter afforded, and that the question may present itself whether it may not eventually be deemed desirable to undertake the construction of additional works.

4. It is satisfactory to find that the first four of these facts do not, in the opinion of the Government, "give rise to any doubt as to the stability of this great work," and, with regard to the fifth, the opinion of Captain Taylor, that the advantages of the harbour even in its present state "will richly repay the dues in the shape of landing and shipping charges and increased port dues," seems to be conclusive against any great urgency in the demand for supplementary works.

5. So far, therefore, I would submit that the statements made in the various papers do not very clearly indicate what particular questions of immediate urgency require my personal investigation on the spot.

6. I have not been satisfied, however, with this negative result, but have myself carefully reconsidered all the questions which still remain open, and have been unable to discover any of which my presence at Madras would materially facilitate the solution. I would most respectfully submit that I am the only competent judge of how far the voluminous information in the form of letters, returns, plans, measurements, &c., which come to me from Madras every week requires to be supplemented by personal observation. From time to time this is necessary, but I do not feel it to be so at present, and the papers under consideration suggest no new questions whatever.

7. The necessity of my being at Madras during the cyclone seasons is suggested, but I think the idea fails to take a practical form when more closely examined. The twelve cyclone seasons, of which the very competent executive staff has already had experience, in every one of which there was more or less rough weather, and sometimes very heavy seas, have only served to confirm our confidence in the work as executed to withstand even much heavier seas than those to which they have been exposed; and there has been definite evidence of the effect of these latter, although the actual breakwater works have never been damaged. Whenever the real test of a "first-class cyclone" is brought to bear it will show, what we do not at present know, whether there is any weak place in the work, and if there is, we may be sure that it will also suggest how the weak place may be strengthened.

8. But this knowledge cannot be obtained by the most experienced observer watching the sea breaking over the works, even if this much could be witnessed, which is doubtful. It must be based upon the careful surveys made during the subsequent calm. In the event of any serious damage to the works I need not say that I should be ready, at any personal sacrifice, to do what might appear to be best for determining on the mode of remedying it, and preventing its recurrence. But at present I cannot imagine that my presence at Madras would enable me to suggest anything to put the works in a better state to bear the test.

9. With regard to the five points put forward as grounds for my visiting Madras, I may remind you that I have already, on 4th August reported on the first, giving my reasons for the adoption of the 24-feet width of breakwater. I did not mention the second, the action on the rubble base, in that report, because my description of the occurrence had been quoted in full by Captain Taylor and Colonel Sankey in their memorandum, and I thought that the simple statement of facts might speak for itself. A hole was scoured out from the rubble base at a great depth, but in a position and under conditions which would be materially altered in the

completed work. It was evidence of a great destructive force of sea, but at the same time of the ample provision made against its effects.

10. The third and fourth points were dealt with in my letter to you of 1st September, based on the telegraphic report of the proceedings at the Legislative Council, which appeared in the *Times*. On the fifth point Captain Taylor's testimony is all I can want, but I may mention that it is confirmed by Mr. Beardmore, who, at my request, made some special observations on the shelter afforded by the piers.

11. There is one other point which is not alluded to in the letter of the Government, but of which a good deal is made in the newspaper reports of the proceedings, viz., the supposed collection of sand or silt in the harbour. In my letter of 1st September I gave an emphatic denial to the assertion of its existence. To this denial I adhere in substance. But what I meant specially to negative was the supposition, which is deeply rooted in the minds of many persons, that sand finds its way into the harbour by the entrance. This would be the only legitimate application of the term "silt," and I am perfectly satisfied that no such action is going on. But, since I wrote that letter, I have been informed of some further changes of the shore line within the harbour, which have not as yet been satisfactorily explained, though I have no doubt they will be. If I had known of these changes I should have taken care to define the limits of my assertion that not a grain of sand had entered the harbour. It is quite certain, however, that, though these changes of the shore line may give a temporary handle to an adverse critic, they cannot be due to any serious deteriorating action.

12. On the whole, then, I feel bound to submit my conclusion that there is not sufficient justification for the cost of my visiting Madras at the present time. I should have no personal objection to it if sufficient reason existed, and if there existed in the minds of the authorities at Madras any serious misgivings as to the success of the works, which my explanations, after further local investigation, were likely to remove, that would be a sufficient reason, but the papers referred to me give no expression to such misgivings. On the contrary, Captain Taylor's letter is most reassuring upon the only point on which a doubt seemed to exist, viz., the sufficiency of the shelter for the present requirements of the trade. The suggestion that further works may be required fully to develop the advantages of the harbour is rather to the credit of the scheme than otherwise, but it would be premature to discuss the details of such further works till their want is felt. I would express a hope, therefore, that the Government of Madras will be satisfied to allow me to watch the progress of events as hitherto, and I pledge myself to allow no personal considerations to prevent my asking for the sanction of the Secretary of State to my visiting Madras whenever I think that my doing so will be advantageous to the work.

From W. PARKES, Esq., M. INST. C. E., Engineer-in-Chief, Madras Harbour Works, to the Master Attendant, Madras, dated 23, Abingdon Street, 10th June 1881.

In his recent letters to me, Thorowgood has given me the results of his observations on the amount of shelter afforded by the nearly completed piers during the southerly and easterly seas lately prevalent. He expresses himself as somewhat disappointed in the effect produced, and signifies that a similar feeling is expressed in other quarters.

Too much importance must not be attached to such expressions of disappointment. The anticipations with which the still incomplete reality is compared were necessarily based on very indefinite grounds, and some disappointment is quite consistent with the fact of very important practical results having been attained.

But I think the existence of these feelings of disappointment makes it desirable that there should be some authoritative statement of the positive results which have been already obtained, and of the degree of further improvement which may be anticipated from the completion of the works.

To defer this till the tiers are complete would virtually be to defer it for a year, for it will not be till May 1882 that the seas will again be prevalent from the quarters which are most complained of. By that time the Harbour Works establishment will be broken up, and if any question should arise it would be discussed at a disadvantage. It cannot now be difficult to make allowance for the difference between the present opening of 750 feet and the ultimate one of 550 feet in admitting the swell.

What I would suggest, therefore, is that you should report to the Government how far, from your own observation, you think the number of ships which may be expected under ordinary conditions of trade to be in the harbour at one time can be berthed in water sufficiently calm to allow of cargoes being discharged and shipped at all ordinary times, and how far, at the same time, the landing jetties, or at least one of them, will be sufficiently under shelter to allow the cargo boats to lie alongside them. You would thus indicate the limits of the accommodation which the harbour will afford, and from this a judgment could be formed as to the best way of extending those limits immediately, if necessary, or at some future time if an increased trade should call for it.



BUILDINGS AND ROADS
CIVIL WORKS.

Gobt. of (1831) Madras.
PUBLIC WORKS.

THE SUPERINTENDENT OF THE
MADRAS HARBOUR WORKS.

Secy. Secy. Secy.

Dated November, 1882.

Issued

Recd.

Recd.

G.O., 14th November 1881, No. 2512 W.

NOVEMBER.

Nos. 121-121-A.

Madras Harbour Works.—Despatch from the Secretary of State for India regarding the necessity of Mr. Parker's presence at Madras during the cyclone seasons from 15th October to 15th May 1882, recorded with remarks.

5TH JUNE 1882, No. 1382 W., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General.
Establishment.

No. 21.

READ—the following letter from the Harbour Committee, to the Chief Secretary to Government, Marine Department, dated Madras, 5th April 1882:—

We have the honor to report that, acting under the instructions contained in G.O., 14th October 1881, No. 2512 W., we have reassembled to consider the points named by Government for our opinion. We would have sent in our report at a much earlier date, but we were under the impression that the damage caused to the Harbour by the cyclone of the 12th November last rendered it unnecessary to consider for the present the question of levying fresh dues. In obedience, however, to the expressed wish of Government, we have the honor to advise that we have considered what would be the best "arrangements for managing the Harbour and levying dues for its use, and for landing and shipping goods under the improved facilities afforded."

We have had the advantage of having before us a letter, dated December 1881, written to our President by Captain J. H. Taylor, and a copy of which is submitted for the information of Government. We have also ascertained from the principal trading and commercial firms what their landing and shipping goods costs them now that the shelter of the Harbour is partially available. The conclusion at which we have unanimously arrived is that it would be undesirable to have two rates for goods as suggested by Captain Taylor, and that if all goods pay Rs. 2-2-0 per ton (computed according to the Madras Chamber of Commerce tonnage scale) this would not be unduly burdensome on the trade, while it would give fully one rupee per ton to go towards the revenue of the Harbour. For the charge of Rs. 2-2-0 per ton the goods would be taken charge of, landed or shipped, as the case may be, a police guard provided, and the portage to and from the Custom House or Beach defrayed.

Government will no doubt observe that, in recommending a consolidated rate for landing and shipping, it is contemplated that the whole control of the trade of the port should be undertaken by some department. Hitherto the various firms engaged in trade have made their own arrangements for landing and shipping, and we are not unaware of the objections that may be raised to the proposal we have indicated. But in our opinion the best arrangement for levying dues for the Harbour must include a consolidated rate for which everything will be done.

Captain Taylor, it will be seen, proposes that the work connected with the landing and shipping be undertaken by his department, and he estimates that for an extra Rs. (260) two hundred and sixty per mensem he could provide all the additional establishment required. We simply call attention to his figures, without assuming any responsibility for them. But it is our duty to point out to Government that if one of their departments is made to undertake the whole landing and shipping of the port, and to charge a consolidated rate for so doing, then of course Government is responsible for all loss and damage to goods while under their charge. It may be

that this is not a very serious responsibility, but it is one that Government will have to incur.

(Signed) P. MACFADYEN.
 (") R. J. MELVILLE.
 (") R. C. WALKER.
 (") R. G. ORR.
 (") J. H. TAYLOR.
 (") A. M. SAUNDERS.
 (") N. St. B. BEARDMORE.
 (") H. L. PRENDERGAST, Col., R.E.

It has to be noticed that the Hon. Mr. Coleman's signature is wanting to the report, owing to that gentleman having left for England before the report was ready, but it may be mentioned that he fully concurred in Captain Taylor's views.

(Signed) J. H. TAYLOR,
 Secretary.

ENCLOSURES.

From J. H. TAYLOR, Esq., Lieutenant, R.N.R., Master Attendant, Madras, to the President, Harbour Committee, dated December 1881.

I have now the honor to advance my opinion that the injury to the Harbour walls, though necessitating considerable delay in the completion of the work, does not and should not interfere with a thorough re-organisation of the Harbour arrangements, and the levy of a sufficient annual sum to justify the Government in prosecuting this important work. With this view I have drawn out a scheme which will provide for revenue, establishment, order and discipline; and, while removing many disabilities under which the port now labors, will not increase the burden now placed on trade, nor inequitably affect any branch of legitimate business.

2. For convenience I have expressed the terms of this scheme in tons, which, however, will also be shown in trips, the word that most generally obtains at present.

3. The import and export cargo from Europe is the most important item. This is almost entirely landed and shipped from the Pier. The duty of conducting this work falls upon the Pier Contractor, superintended by the Pier Master, Traffic Manager and staff, Peons, &c.

4. The present charge for this duty is 8 annas a trip, half of which is given to the contractor, the remaining half goes for establishment, upkeep, repairs, &c., of the Pier and its belongings.

5. The Pier Contractor delivers all free goods and machinery at the inner end of the Pier, and carries the remainder into the Custom House, and unloads it into sheds.

6. Before the Pier was constructed all this work was done by an individual called the Custom House Contractor, and by some extraordinary oversight he has been allowed since that period to continue in his position and make the same charges as before, although the main portion of the work is done for him and charged in its proper place. He has no contract, and apparently never had one, and no responsibility, except what he has taken upon himself with a view to keep things quiet. I had always been under the impression that he was paid by the Custom House out of revenue for the sole duty he exercises of arranging and giving out packages. His scale of charges is traceable on an old almost effaced card, but he has private separate arrangements with most of the great importers, which have been carried out under the supposition that the charge was one authorised by the Collector. Here at once is an instance where the trade directly suffers, and reform is demanded. I propose that all the duty be transferred to the Pier Contractor to be called Harbour Contractor, and that he conduct the small additional duty that will devolve upon him, receiving a small increase, say 5 annas in lieu of 4; and I would suggest that all goods intended for the Custom House be made to pass over the Pier as a safeguard against loss or damage until the new jetties are completed.

7. The charges connected with this branch of business I estimate as follows:—

	Per Ton.
RS. A. P.	
Nominal boat-hire to Pier is at present Rs. 1-8-0, but a deduction of 8 annas is made from it for Pier portage.	Boat-hire ... 0 8 0
	Portage ... 0 5 0
	Police... 0 2 0
	Tax for Harbour ... 1 0 0
	1 15 0

8. The present trip to consist of two tons.

9. The ordinary boat-hire may be reduced, when more shelter is given, to one rupee a trip, or 8 annas a ton, the sum thus saved being credited to the Government to cover additional capital required for the Harbour since the accident to its walls.

10. The establishment required for the work will be treated of in conclusion.

11. It is to be observed that these charges are simply for work done, and do not interfere with agency and commission at present ruling.

12. With regard to the Beach cargo or free goods, there is absolutely no choice, but for the Harbour management to take all duties upon itself and realise the greater portion of the present profits.

13. It will be manifestly impossible to levy a rupee a ton in excess of present rates, and there is very much in the existing arrangements that call for alteration in the interests of trade.

14. The profits at present made are not earned by any service. It is an astounding fact that with no responsibility, no expenses of landing or shipping, which falls on the boatman, large charges are sanctioned and paid, simply because the trade cannot look into matters, and are powerless to help themselves. Large importers assure me that so multifarious are the charges now obtaining that they really never know what they do pay under the head of portage. I propose to land and separate all free goods through the medium of a responsible contractor to arrange the various cargoes, and enable every merchant to see that the terms of his Bill of Lading are complied with. The saving under this head alone to the trade will be enormous.

15. A sufficient space on either side of the iron Pier enclosing the new jetties should be handsomely palisaded, and large covered sheds placed to ensure a weather protection. The present charges for watching would be done away with, as the portage and police charge will cover everything, by which another large saving to trade will be effected. A very sufficient style of shed is being erected within the Custom House, iron pillars and teak beams, circular in shape, covered with corrugated iron. A narrow covered way should lead also from the main shed to the inner end of the jetty for protection to Europeans.

16. The expense of these improvements can be met from Port Funds.

17. The charges would be almost identical with the bonded goods—

	Per Ton.
RS. A. P.	
Boat-hire ...	0 12 0
Portage ...	0 5 0
Police ..	0 2 0
Harbour revenue ...	1 0 0
	2 3 0

Grain, which is now subject to much loss, would be greatly benefited at the same rate as now rules, e.g., if we name 14 bags to a ton, the present rate of 2½ annas a bag exactly amounts to Rs. 2-3-0. Other goods in same proportions.

18. The same test may be applied to all other goods with almost same conclusions. It corresponds very nearly with the Bombay Port Trust rate on packages recommended by the Madras Chamber of Commerce.

19. Boat-hire.—With regard to this item it has been the practice hitherto to deduct 8 annas a trip for the facilities offered by the Pier, thus reducing the hire to one rupee a trip, while the Masulah boats landing on the Beach receive Rs. 1-8-0, the men unloading their own boats. It will be for the Committee to discuss this plan among others. I am myself in favor of doing all the Beach work by cooly contract, in which case, if one rupee a trip would rule both on Pier and Beach, a reduction of 4 annas a ton is thus at once reached, bringing the total charge to Rs. 1-15-0 a ton.

20. The crew of the Masulah boats working inside the Harbour might be reduced to six rowers, one tindal, and one boy, which would cause a reduction of expense.

21. I find on looking to old Almanacs that 50 years previous to 1873 the rate of boat-hire to vessels in the outer roads was only Rs. 1-8-0, and inner roads 15 annas, but it would appear that, owing to the competition of the lighters, which injured greatly the Masulah boat trade, an increase of 1 rupee was made, bringing it up to Rs. 2-8-0 a trip.

22. I find that in practice even now the dubashes charge the consignees Rs. 2 a trip, although the charge is only Rs. 1-8-0, and they also charge portorage, although that is met from the real hire of Rs. 1-8-0. All these matters demand consideration, and are clearly connected with the prosperity of the Harbour, and the levy of revenue without pressing too much on trade.

23. For the joint establishment of Pier and Beach, I recommend that the Pier Master's present pay be increased from—

	Increase.
	Rs.
Pier Master and General Superintendent, Rs. 225 to 275	50
Deputy to be Assistant Traffic Manager, Rs. 60 to 120	60
Present Head Clerk, giving security Rs. 500, combining Cash-keeper's duty, Rs. 25 to 40	15
Two Clerks, Rs. 20 and 17	37
One Head Conicopoly, security Rs. 500	16
Four Conicopolies, at Rs. 10	40
Six Peons, at Rs. 7	42
	260

24. This will be met from the portorage after paying the contractor.

25. Mr. Thorowgood's estimate for Harbour I enclose, but that may stand over for the present.

Report of Trades' Association through the Chairman.

1. I see no good grounds for delaying the consideration of Captain Taylor's proposals. In G.O., No. 2512, of 14th October, the Government stated that in appointing the Committee "the object of the Government was to obtain their advice as to the best arrangements for managing the Harbour and levying dues for its use," because "it is essential that a reasonable revenue should be raised."

2. The Government are fully entitled to some return for the monies already expended, and as Captain Taylor proposes a plain and practical scheme, and shows how funds can be obtained without, perhaps, any increase upon present rates, I consider that it should at once be discussed, if the Committee have any desire to assist Government with practical advice.

3. I do not see that Mr. Parkes' views at all affect the consideration of the real question before the Committee. Those views can have reference only to the construction and maintenance of the Harbour Works, and can scarcely relate to the question as to the dues that may be fairly levied upon goods shipped and imported.

4. As a whole I entirely approve of Captain Taylor's proposed scheme, and hope that, before long, it, or something similar, may be adopted.

21st December 1881.

(Signed) ROBERT G. ORR.

MINUTE of dissent by the Hon. P. MACFADYEN.

I am not in favor of Captain Taylor's proposal that the whole control of the trade of the port should be handed over to the Marine Department. To effect this fresh legislation will be necessary, and this being the case I beg respectfully to express my opinion that it would be better to proceed with the Port Trust Bill, whose provisions have met with the approval of the Chamber of Commerce, and which having been amended by and reported on by a select Committee could be passed in the Legislative Council without further prolonged discussion. The proposed consolidated rate for landing and shipping is a wide departure from the arrangements at present existing, and I feel confident that a body like the Port Trustees, in which all trading interests would be represented, is better adapted to inaugurate such a change than any Government Department however well intentioned.

(Signed) P. MACFADYEN.

MINUTE by A. M. SAUNDERS, Esq.

I agree with the remarks made above by the Hon. Mr. Macfadyen.

6th April 1882.

(Signed) A. M. SAUNDERS.

MINUTE by J. H. TAYLOR, Esq.

As the only member of the Committee, who has advanced any practical scheme for the levy of Harbour dues, I feel it necessary to add some remarks that have suggested themselves after the discussion of the scheme in Committee. It seemed to me to be thoroughly understood by the Committee that a consolidation of the various existing charges is the only method by which the sum required can be raised, and the necessary establishment supported. This therefore, or some almost identical plan, would be forced upon any Port Trust, Marine Board or Department. As many of the members of the Committee are not familiar with the subject before them, I may be allowed to point out what the nature of all existing Port Trusts is.

They all possess Harbours more or less secure, never exposed like Madras. They have advanced through all the phases of initial expense to their Governments, of assistance and support from them, until a period has arrived when they can stand alone with ample funds at command, with no prospect of any future State support being needed, and when the funds raised from port dues, from mercantile and shipping interests, can reasonably be administered by mercantile and shipping men. Nothing can be more equitable, and Government may well grant the necessary powers.

But the situation of Madras is entirely different, so much so that the title Port Trust would be inadmissible.

A debt of (60) sixty lakhs has been incurred, raised from the credit of the whole empire, which is responsible for it, and for its interest; that debt is rapidly advancing towards a million, and no one can say in the exposed position of Madras Harbour, and with walls erected on sand, when that debt may not be extended. A Port Trust could not go on raising money on its own resources, and guarantees it would not possess, for the sum it is now contemplated to raise will merely cover the interest of the present debt.

The mercantile community seek to secure the largest share in the administration, yet their interests would soon conflict with those of Government. The position would be anomalous and charged with grave and increasing difficulties.

Then as to the purely executive duties connected with the Harbour, I by no means wish them transferred to the Marine Department, or to my sole control. No one appreciates the value of technical experience and advice more than myself, and I have always respectfully recommended to Government that a Marine Board, as nearly as possible constituted as a Port Trust, should be the medium of communication between the Government, the public, and the Harbour authorities. The Chamber of Commerce might be invited to select two of their members to represent the Chamber, the Trade Association two, one of the boat-owners selected by themselves, the Collector, the Master Attendant, and his (Deputy, the Executive Officer of the Port), the District Engineer, and the Harbour Works' Engineer, Government Solicitor. Of this Board the non-official members should be entitled to a fee for attendance, which I would propose to be about Rs. (25) twenty-five. Meetings might be held monthly, at which all objects and references connected with the Harbour could be brought to notice. A paid Secretary would also be a desideratum at the same fee.

This would represent a sum of Rs. (150) one hundred and fifty monthly, (1,800) one thousand and eight hundred per annum. The Government would thus be kept at a small charge in direct communication with the best advice that can be available.

As to responsibility I may be allowed to point out that nothing in this arrangement will cause any increase in its present amount, while by consolidation under one controlling authority it will in all probability be materially reduced.

Government will have, moreover, the security of the zeal and intelligence of its own officers and establishment, while the contractor or contractors, if the Board select that course of proceeding, will be chosen for their solvency and give ample security. I cannot anticipate any difficulty on that head.

The responsibility at present sits very easily on the shoulders of those who bear it, and if the Board elect to do the work departmentally, the payment hitherto made as compensation for all causes of loss combined being calculated, any office would be glad to enter into an insurance that would remove even the shadow of loss.

Nine-tenths of the English import cargo and much of the export are already administered by the Pier Department, and the extension of the duty to the whole trade is a mere matter of detail, which a practical Board could easily dispose of satisfactorily.

(Signed) J. H. TAYLOR.

30th March 1882.

MINUTE by R. J. MELVILLE, Esq.

I agree with Captain Taylor. I consider it premature to start a Port Trust when the only things to be entrusted to the Trustees are an incomplete Harbour and a debt of more than half a million of money. Anything that could be done by Port Trustees could be done as well by a Harbour Committee, on which, if considered advisable, the mercantile or trading community might be more fully represented than at present. I add this to meet one of the objections suggested in the Hon. Mr. Macfadyen's minute of dissent.

6th April 1882.

(Signed) R. J. MELVILLE.

MINUTE by R. G. ORR, Esq.

Captain Taylor's Minute accompanying this report appears to me conclusive as against a Port Trust in the present state of Harbour affairs. As stated in my dissent of 23rd August I still consider that a Committee or Board can afford Government all the practical advice Government may require, and will fully represent various local interests. To invest such a body with legal powers, as would be the case with a Port Trust, would be, I respectfully submit, inexpedient and entirely unnecessary.

5th April 1882.

(Signed) R. G. ORR.

MINUTE by R. C. WALKER, Esq.,

I concur in the views expressed in Mr. Macfadyen's minute. The objections raised by Captain Taylor to the formation of a Port Trust appear to me to be chimerical. In fact the Marine Board as proposed by him would be very similar in constitution to a Port Trust, only without the powers and organization of the latter body, than which it would, therefore, in my opinion, work far less satisfactorily both to Government and the mercantile community.

5th April 1882.

(Signed) R. C. WALKER.

No. 22.

ORDER—dated 5th June 1882, No. 1382 W., Public Works.

The Committee, reassembled under G.O., 14th October 1881, No. 2512 W., for the purpose of reporting on certain points connected with the management of the Madras Harbour, levying dues for its use, and landing and shipping goods, have unanimously recommended a consolidated charge of Rs. 2-2-0 per ton on all goods landed and shipped in the Harbour for which the goods would be taken charge of, landed or shipped, guarded, and the portorage to and from the Custom House defrayed.

2. His Excellency the Governor in Council therefore now directs the Master Attendant to place himself in communication with the Advocate-General in view to the draft of a short Bill being prepared to enable the Government to levy this charge, and to entrust the duty to such Government Officer or Department, or specially constituted body, as it may think fit, and to credit the proceeds:—

1st, to the expenses connected with the performance of the service ;

2nd, and any surplus towards—

1st, defraying the interest on the Capital cost of the Harbour,

2nd, and to form a Sinking Fund for reducing the Capital cost.

3. As regards the administrative agency to be employed with the above object, the Government, after very carefully weighing all that has been advanced in favor of the immediate creation of a Port Trust, are of opinion that under the existing circumstances of the Harbour Works such a measure would clearly be premature, though ultimately it might be both useful and advisable.

4. On the passing of the Bill above directed to be framed His Excellency in Council will nominate such executive agency as will in his opinion offer the best available guarantees for securing the highly important interests involved and satisfying the reasonable requirements of the trading community.

(True Extract.)

(Signed) R. H. SANKEY, Colonel, R.E.,
Secretary to Govt., P.W.D.

To the Master Attendant, Madras.

„ R. C. Walker, Esq.

„ A. M. Saunders, Esq.

„ the Superintending Engineer, Fifth Circle.

„ the Superintendent, Madras Harbour Works.

„ the Chairman, Chamber of Commerce.

„ the „ Trades, Association.

„ the Marine Department.

„ the Revenue Department.

„ the Legislative Department.

Exd. C. Howarth.

Spare Copies

GENERAL.
ESTABLISHMENT.

Govt. of (1882) Madras.
PUBLIC WORKS.

Dated June, 5th.

Recd.

Encl.

G.O., 5th June 1882, No. 1382 W.

JUNE.
Nos. 21-22.

Madras Harbour.

Passing orders on the report of the Committee appointed to report on the management of the — levying dues for its use and landing and shipping goods.

Madras,
December, 1881.

To

The President, Harbour Committee,
MADRAS.

SIR,

I have now the honour to advance my opinion that the injury to the Harbour walls, though necessitating considerable delay in the completion of the work, does not and should not interfere with a thorough re-organization of the Harbour arrangements, and the levy of a sufficient annual sum to justify the Government in prosecuting this important work. With this view, I have drawn out a scheme, which will provide for revenue, establishment, order and discipline; and while removing many disabilities under which the Port now labours, will not increase the burden now placed on Trade, nor inequitably affect any branch of legitimate business.

2. For convenience, I have expressed the terms of this scheme in tons, which, however, will also be shown in trips, the word that most generally obtains at present.

3. The import and export cargo from Europe is the most important item. This is almost entirely landed and shipped from the Pier. The duty of conducting this work falls upon the Pier Contractor, superintended by the Pier Master, Traffic Manager and Staff, Peons, &c., &c.

4. The present charge for this duty is 8 annas a trip, half of which is given to the Contractor, the remaining half goes for establishment, upkeep, repairs, &c., of the Pier and its belongings.

5. The Pier Contractor delivers all free goods and machinery at the inner end of the Pier, and carries the remainder into the Custom House, and unloads it into sheds.

6. Before the Pier was constructed, all this work was done by an individual called the Custom House Contractor, and by some extraordinary oversight, he has been allowed since that period to continue in his position, and make the same charges as before, although the main portion of the work is done for him, and charged in its proper place. He has no contract, and apparently never had one, and no responsibility, except what he has taken upon himself with a view to keep things quiet. I had always been under the impression that he was paid by the Custom House out of revenue, for the sole duty he exercises of arranging and giving out packages. His scale of charges is traceable on an old almost effaced card, but he has private separate arrangements with most of the great importers, which have been carried out under the supposition that the charge was one authorized by the Collector. Here at once is an instance, where the Trade directly suffers, and reform is demanded. I propose that all the duty be transferred to the Pier Contractor to be called Harbour Contractor, and that he conduct the small additional duty that

will devolve upon him, receiving a small increase, say 5 annas in lieu of 4; and I would suggest that all goods intended for the Custom House be made to pass over the Pier as a safeguard against loss or damage until the new jetties are completed.

7. The charges connected with this branch of business I estimate as follows:—

	Per ton.		
	RS.	A.	P.
Boat hire	...	...	...
Porterage	...	...	...
Police	...	...	...
Tax for Harbour	...	...	...
	1	15	0

Nominal boat hire to Pier is at present Rs. 1-8-0, but a deduction of 8 annas is made from it for Pier porterage.

8. The present trip to consist of two tons.

9. The ordinary boat hire may be reduced when more shelter is given, to one Rupee a trip, or 8 annas a ton, the sum thus saved being credited to the Government to cover additional capital required for the Harbour since the accident to its walls.

10. The establishment required for the work will be treated of in conclusion.

11. It is to be observed that these charges are simply for work done, and do not interfere with Agency and Commission at present ruling.

12. With regard to the Beach cargo or free goods, there is absolutely no choice, but for the Harbour Management to take all duties upon itself, and realize the greater portion of the present profits.

13. It will be manifestly impossible to levy a rupee a ton in excess of present rates, and there is very much in the existing arrangements that call for alteration in the interests of Trade.

14. The profits at present made are not earned by any service. It is an astounding fact that with no responsibility, no expenses of landing or shipping, which falls on the boatman, large charges are sanctioned and paid, simply because the Trade cannot look into matters, and are powerless to help themselves. Large importers assure me that so multifarious are the charges now obtaining that they really never know what they do pay under the head of Porterage. I propose to land and separate all free goods through the medium of a responsible Contractor to arrange the various cargoes, and enable every merchant to see that the terms of his Bill of Lading are complied with. The saving under this head alone to the Trade will be enormous.

15. A sufficient space on either side of the iron Pier enclosing the new jetties, should be handsomely palisaded, and large covered sheds placed to ensure a weather protection. The present charges for watching would be done away with, as the porterage and police charge will cover everything, by which another large saving to Trade will be effected. A very sufficient style of shed is being erected within the Custom House, iron pillars and teak beams, circular in shape, covered with corrugated iron. A narrow covered way should lead also from the main shed to the inner end of the jetty for protection to Europeans.

16. The expense of these improvements can be met from Port Funds.

17. The charges would be almost identical with the Bonded goods:—

	Per ton.		
	RS.	A.	P.
Boat hire	...	...	...
Porterage	...	...	...
Police	...	...	...
Harbour revenue	...	...	...
	2	3	0

Grain, which is now subject to much loss, would be greatly benefited at the same rate as now rules—*e. g.* if we name 14 bags to a ton, the present rate of $2\frac{1}{2}$ annas a bag exactly amounts to Rupees 2-3-0. Other goods in same proportions.

18. The same test may be applied to all other goods with almost same conclusions. It corresponds very nearly with the Bombay Port Trust rate on packages recommended by the Madras Chamber of Commerce.

19. Boat hire.—With regard to this item, it has been the practice hitherto to deduct 8 annas a trip for the facilities offered by the Pier, thus reducing the hire to one Rupee a trip, while the Masulah boats landing on the Beach receive Rs. 1-8-0, the men unloading their own boats. It will be for the Committee to discuss this plan among others. I am myself in favour of doing all the Beach work by cooly contract, in which case, if one Rupee a trip would rule both on Pier and Beach, a reduction of 4 annas a ton is thus at once reached, bringing the total charge to Rupees 1-15-0 a ton.

20. The crew of the Masulah boats working inside the Harbour might be reduced to six rowers, 1 tindal, and 1 boy, which would cause a reduction of expense.

21. I find on looking to old Almanacs that 50 years previous to 1873, the rate of boat hire to vessels in the outer roads was only Rupees 1-8-0, and inner roads 15 annas, but it would appear that, owing to the competition of the lighters, which injured greatly the Masulah boat trade, an increase of 1 Rupee was made, bringing it up to Rupees 2-8-0 a trip.

22. I find that in practice even now the dubashes charge the consignees Rupees 2 a trip, although the charge is only Rupees 1-8-0, and they also charge porterage, although that is met from the real hire of Rupees 1-8-0. All these matters demand consideration, and are clearly connected with the prosperity of the Harbour, and the levy of revenue without pressing too much on Trade.

23. For the joint establishment of Pier and Beach, I recommend that the Pier Master's present pay be increased from—

		Increase.
Pier Master and General Superintendent	Rs. 225 to 275	50
Deputy to be Assistant Traffic Manager	„ 60 to 120	60
Present Head Clerk, giving security Rupees 500, combining Cash-keeper's duty	„ 25 to 40	15
Two Clerks, Rs. 20 and 17		37
One Head Conicopoly, security Rupees 500		16
Four Conicopolies at Rupees 10		40
Six Peons at Rupees 7		42
		<u>Rupees 260</u>